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“They Look at Themselves and Say: ‘Well, okay...’” *The Contribution of Video Technology to Professional Identity Development*

Anne-Mette Nortvig¹

Abstract: In order to develop a professional identity, the body is usually in focus for students working towards a professional bachelor's degree in physiotherapy, and when their education is part of an e-learning programme, technology comes to play an important role. This study has focussed on the development of professional identity through the use of video technology. On the basis of qualitative empirical material from a professional bachelor's degree e-learning programme, it was found that the use of video can contribute to reflection of professional identity through its opportunities for visual reification of the professional “Me.” While acting in profession-like settings, students can experience their professional actions only from an inside “I”-perspective. When given the opportunity to observe those actions later via video recording, students are able to observe, reflect upon and evaluate their professional “Me” from an outside perspective as through the eyes of another.

Keywords: e-learning, body, video, professional identity, I-Me, symbolic interaction

This paper is about professional identity and e-learning. The question to be answered is how students in a professional bachelor's degree programme in physiotherapy can develop a professional identity via e-learning when this way of learning seems to prevent working with physical bodies, which is a key area in this field of education. I will begin by introducing the concept of professional identity in educational settings in light of symbolic interactionism, and I will present the study that took place within a specific physiotherapy e-learning programme. Next, I will analyze the role of the body in physiotherapy teaching, and I will focus on students' opportunities for development of a professional identity that depends on a bodily alignment with the profession's expectations and norms. Finally, I will show how the body and the professional interactions were reinterpreted during learning design workshops with e-learning teachers, and I will discuss how the programme's use of video contributed to new ways of reflection upon the body, professional interaction, and professional identity.

It is often highlighted in the research literature that reflection contributes to the development of professional identity (Sutherland, Howard, & Markauskaite, 2010; Trede & Smith, 2012). In health education in particular, reflection with attention to the body has been found to play a crucial part (Nicholls & Gibson, 2010; Roskell, 2013). To understand the concept of professional identity, many scholars turn to a symbolic interactionist understanding of identity (cf. Beijaard, Meijer, & Verloop, 2004; Shaffir & Pawluch, 2003) because Mead's (1934) detailed description of the self underscores the continuing interactions between individual, profession, and society in relation to identity development. According to Mead, the self develops in social settings; through language, game, and play, the individual becomes part of a social community—a profession, for example. The professional identity continues to develop during the professional career. Not only do the profession and the students' pre-

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understanding of it contribute to the professional identity; the learning designs and pedagogy in the educational programme contribute as well (Reid, Dahlgren, Petocz, & Dahlgren, 2008). Thus, identity can be defined as the situated component of the self which is developed in social interactions as a reflective process between “I”-“Me” and “Other” (Mead, 1934).

Professional identity

According to Mead (1934), successful development from being a student to being, for instance, a physiotherapist depends on people, things, social worlds, and the interactions between them. Self internalizes the social world as a part of the process which consists of predicting and interpreting the generalized other, and in the development of the social self in professional settings—or a professional identity—the generalized other and the social “me” are interrelated: “A person is a personality because he belongs to a community, because he takes over the institutions of that community into his own conduct. He takes his language as a medium by which he gets his personality, and then through a process of taking different roles that all the others furnish he comes to get the attitude of the members of the community” (Mead, 1934, p. 162). This side of the identity, which can be labelled the professional identity, is continuously defined and redefined. Yet even when the goal of becoming a member of this group is reached and the neophytes participate fully in the community, the development of the professional identity continues (Vryan et al., 2003). Therefore, professional identity can be seen as both (a) a negotiated and reflected product of education and participation in a practice and (b) a process that can be initiated long before study begins, and which is challenged and recreated continuously (Heggen, 2010). Professional identity also develops through inclusion in and exclusion from different groups (Stone, 2009). Through interactions with these groups, the individual becomes professional in his or her own way. Thus, professional identity development is an individual process that is always already social, and the self-representations are rooted in social experiences, in others' positive or negative expectations (Antonietti, Confalonieri, & Marchetti, 2014). Professional identity is a part of the social identity, but in a symbolic interactionist view, it is always about to be negotiated and re-interpreted by the individual through interactions with the (professionally relevant) other.

This “other” plays a role of the utmost importance in relation to identity in general and professional identity in particular. Strauss (1997) writes that identity is connected with the “fateful appraisals made of oneself – by oneself and by others. Everyone presents himself to the others and to himself, and sees himself in the mirrors of their judgments” (1997, p. 11). This presentation depends not only on interactional behaviour with others but also on the awareness of one's physical appearance to them (Crossley & Crossley, 1995; Goffman, 2010). In interacting with other people through voice, body posture, clothing, and other means, our body contributes to telling who we are. In professional groups, these professional “masks” (Strauss, 1997) are important. As Riemer frames it, “[B]ecoming a building construction electrician involves more than simply learning how to do electrical work; it also involves a process of looking and acting like an electrician” (1977, p. 96; ref. in Shaffir & Pawluch, 2003, p. 897). This symbolic interactionist way of understanding identity was found to be inspirational for analysing professional identity in relation to e-learning in the present study and will be elaborated below.

The study, the empirics and the methodology

The present study focused on the ways teachers and students perceived the effects of e-learning on students' participation, presence, and professional identity development in the professional bachelor's programme in physiotherapy. Here, e-learning was implemented in a blended

format: the e-learning students participated in traditional on-campus teaching three days every second week; the rest of the days, they attended on-campus teaching via videoconference from home or studied at home independently or in groups. When the teaching took place on campus, either the classroom consisted of only physically present students, or half of them (the traditional on-campus students) were present on campus and the rest (the e-learning students) participated online via Adobe Connect. Thus, e-learning in the physiotherapy degree programme was defined as the part of the teaching that took place when the e-learning students attended class via videoconference but also as a technological enhancement of the teaching on campus. This resembles Laurillard's definition of e-learning as "the use of any of the new technologies or applications in the service of learning or learner support" (2006, p. 20), and this definition of e-learning will be followed in this paper as well.

E-learning research in general is focussed on both the present and the future (Friesen, 2009), because many researchers often have an interest in improving existing designs for learning. In the present project, this interest was brought to life in learning design workshops, where the discussions focused on the way e-learning had changed the traditional degree programme. Moreover, the workshop discussions focussed on how e-learning designs in the physiotherapy programme could be re-designed in order to let technology enhance the teaching both face-to-face and on-line, and thus support the e-learning students' experience of presence and opportunity for professional identity formation in the programme.

The empirical material for this paper stems from participant observations gathered during the study group's first and second years in the e-learning programme. Observations were solicited over a seven-week period in year one and over a three-week period in year two among the e-learning students that were being taught in the blended format (on campus and online). Further material was gathered from five focus groups that included 32 of the 40 students, from qualitative interviews (Brinkmann, 2013; Kvale & Brinkmann, 2009) with the five e-learning teachers, and from participant observation in six e-learning design workshops with the teachers. The resulting field notes and videos were coded and analysed with inspiration from grounded theory (Charmaz, 2009; B. Glaser & Strauss, 1967) and supported by the qualitative data analysis software Dedoose (2015). Symbolic interactionism and grounded theory are often found to overlap historically, methodologically, and theoretically (Bryant & Charmaz, 2013; Clarke & Friese, 2013; Johnson, 2013; Milliken & Schreiber, 2012). Both are concerned with investigating social meanings and actions, and together they established the theoretical and methodological frames around the investigation of the educational use of video in the rather complex e-learning setting.

For the professional bachelor's degree programme in physiotherapy, knowledge, skills and mastery of the body are central competencies required for interaction with patients and colleagues (Lund, Bjørnlund, & Sjöberg, 2010; Nicholls & Gibson, 2010). E-learning has made it possible to become a physiotherapist without being physically present as frequently as prescribed by tradition, which may affect the professional identity of the students.

Although Mead (1934) finds that "we can distinguish very definitely between the self and the body" (136) and traditional symbolic interactionist literature (c.f. Waskul, 2002) has often regarded the body as merely "a house" for the self (Goffman, 1959, p. 252), others have found that the interactionist perspective can contribute fruitfully to analyses of the relationship between body and (professional) identity (Faircloth, Boylstein, Rittman, & Young, 2004). In the physiotherapy programme, the perception that one's body looked and acted like that of a physiotherapist's was found to affect the students' professional identity. We will therefore now focus on the role of the body in relation to e-learning in the physiotherapy programme.

Bodies and computers

Three days every second week, the e-learning students were connected from home to campus via the computer and the video conference software. They generally found that this way of studying had many advantages, providing flexibility, reduced transportation time, the ability to hold a job while enrolled in the programme, and the opportunity to attend class despite living far away. The computer became their connection to much of the on-campus teaching, but due to these students' less frequent presence on campus, the computer screen also hindered the most crucial part of the professional physiotherapist's activity: the opportunity of physical contact between students and teachers. A common professional ethos expressed by teachers in the participant group was that physiotherapy inherently requires being close enough to another human being to be able to physically touch and help that person. The teachers frequently made comments such as these: "When you examine an elbow, you must touch it!", "There is no such thing as virtual gloves!" and "You cannot touch a person through a computer screen!" Thus, e-learning was often framed as a challenge or even a problem in the physiotherapy programme due to the precondition that the technology detaches the body, and reflection upon it, from the teaching.

Moreover, it was found that the students were not only very aware of their own bodies but also paid attention to their teachers' bodily appearance in and outside the classroom. Not only do teachers have a body, they also "do" teacher-body in practice (Kannen, 2012, p. 640). Students in the physiotherapy programme both demonstrated and verbally expressed a desire to resemble their teachers' "physiotherapist body." They desired to act and look like physiotherapists, and some felt they already did. In one of the focus groups, the e-learning students argued that being fit is naturally related to physiotherapy education, and they discussed whether a physiotherapist has a certain "look." [Students' names have been changed throughout this paper to protect their privacy.]

Eric: They [the teachers] don't look like someone who sits in front of a computer screen smoking cigarettes and drinking cola, do they?

Tina: They make good role models!

Hakim: That's what I think! It really matters. But I also see it in the physios I work with. They look like that: very fit bodies, and very interested in sports. Very.

Anna: But I also think that a lot of us are already inspired by our sport. I think many of us here have some sort of sport interest.

Marlene: Yeah, it doesn't have to be elite or anything...no... Just fitness in a fitness center... It's just a natural part of us; otherwise we wouldn't be here at all!

The e-learning students believed that being fit and healthy was natural for physiotherapists. Sitting in front of a computer was the opposite of this, because it connoted cigarettes, cola and sitting still. The students also discussed how they believed other people judged their physiotherapy studies as incommensurable with e-learning, and such judgements made them feel stigmatized.

Majken: We feel a bit second-rate; not really as we should be...

Malik: That's what I fear... It's really bad if we end up, after three and a half years, being second-rate physios. During clinical placement, someone asked me: "Oh, e-learning. Okay! How...?" And then you think: "Well, we just got stigmatized there..."

Trine: Yeah, ours did that, too...

Malik: And I spoke to a former colleague who is a physio, and I said that I had started e-learning: "Well, what's that like?" You know. And when you say that you sit in front of the computer, then they think: "Well, okay, then you're not a real physio!"

A majority of the focus group dialogues indicated that to others, the perception of e-learning and the perception of physiologists seemed at odds. The students often framed this as an identity dilemma (Charmaz, 1994). Identity dilemmas can be defined as the work of claiming and maintaining valued identities that are complicated by conflicting sets of normative expectations and as the holding of "contradictory" identities. This emerged in some of the students' expressions of feeling "second-rate" and "not [being] the way they should be." The e-learning students themselves had a clear understanding of what a "real physio" is, how a physiotherapist is trained and how he or she looks. But in their current situation, and when they watched themselves through the eyes of the other (cf. Cooley, 1922 [1902]), students felt challenged because their access to the programme, and thereby their path to becoming a physiotherapist, was established by e-learning.

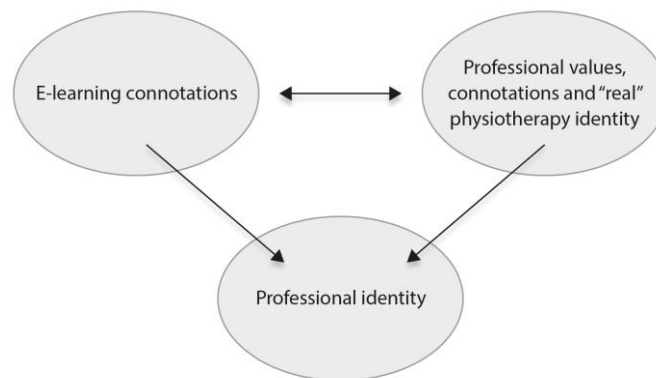


Figure 1: Identity dilemma: Connotations about e-learning and physiotherapy affect the professional identity.

Glaser and Strauss relate this to context and define an identity dilemma as setting "a suspicion awareness context" in which "one interactant suspects the true identity of the other or the other's view of his own identity, or both" (1964, p. 670). In this context, some of the students discussed the implications for their future employment opportunities as physiotherapists if they are still regarded as "strange," and they argued that their degree was equivalent to a traditional professional bachelor's degree.

Morten: But they should clarify this to the outside world, shouldn't they? I mean when we in the future will be applying for a job, so they don't just think: "Oh, it [the diploma] says 'E-learning' ... Well, I think we'd better..."

Lena: It actually says "Physiotherapist." I hope that they don't mark: "E-learner" equals "Strange" [laughs].

Many of the e-learning students found it feasible to be a physiotherapy student *and* an e-learner and thus were very provoked by the fact that using e-learning to study physiotherapy was sometimes perceived as an impossible project. One student strongly expressed an urge to prove the identity dilemma wrong: "Well, I'm sort of provoked by this attitude: 'Ah, that! You can't do that. You can't learn it on e-learning, it's not...' and so on. Then I'm like: 'I am [expletive deleted] gonna show them!'" Like this young woman, several of the e-learning students found that one way to overcome the identity dilemma in having an e-learning identity *and* a

physiotherapy identity was to show others that they knew how to *act* in professional settings in professional ways—like “real” physiotherapists.

To act like a professional

The way trained physiotherapists judged the education and its curriculum seemed to play a very important role for the students, and their advice and professional evaluation were usually followed closely. As two students put it:

Allan: They [the physiotherapists] are what we strive to be, more or less. And we measure ourselves by them.

Mike: Of course! And when they give some sort of signal that “this subject is one of the more obsolete ones in physiotherapy,” then it obviously affects us, too.

Becoming part of a profession requires that, in addition to acquiring the necessary skills, one should also look like a professional (Shaffir & Pawluch, 2003). Moreover, as Goffman states, “[A] status, a position, a social place is not a material thing to be possessed and then displayed [...] it is [...] something that must be enacted and portrayed, something that must be realized” (1959, p. 74). Goffman highlights the relationship between the appearance of the body and the professional identity; he writes, for example, that professionals are “implicitly aware that the effective portrayal of an occupational identity involves the employment of such ‘expressive equipment’” (1959, p. 24). Thus, to step into a group of professionals requires both the acquisition of a certain amount of specialized knowledge, the internalization of the profession’s norms and values, and, not least, a professionally related *management of impressions* (Haas & Shaffir, 1982). Neophytes “must dramatically convince both others and themselves that they possess the expertise and the personal qualities that are the defining characteristics of occupational incumbents of an official image of themselves” (Loseke & Cahill, 1986, p. 246). The e-learning students discussed this focus on both professional values and how to signal belonging to the group. They saw that professional identity was not only expressed in relation to “equipment,” such as clothes, shoes or stethoscopes, but even more so with the body, both how it looked and how it acted and interacted with other people in professional settings.

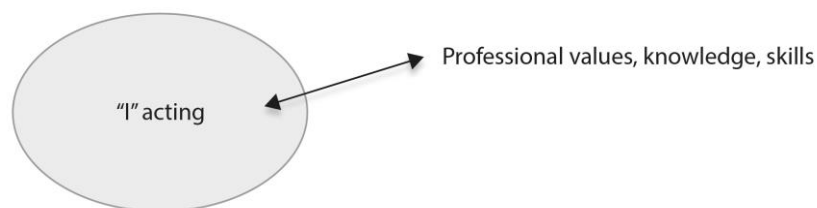


Figure 2: “I” acting in relation to professional values, knowledge, and skills.

Generally, through professional interactions, students can experience understanding and expectations of how the role as a professional in a certain field is performed. As they do this, they will generally attempt to co-ordinate their own enactment of the role with other professionals’ evaluation and judgment. But in order to do so, the students must be able to see themselves as with the eyes of another. This means that a student symbolically changes perspective and tries to evaluate himself or herself with regard to these professional norms and values. The simplest way of handling the problem would be in terms of memory. I talk to myself, and I remember what I said and perhaps the emotional content that went with it. The “I” of this moment is present in the “me” of the next moment. There again, I cannot turn around

quick enough to catch myself [...]. We can go back directly a few moments in our experience, and then we are dependent upon memory images for the rest (Mead, 1934, p. 174).

However, if technology in the form of video is used to play the role of a mirror which maintains the action, it becomes possible to reify the acting “Me” and thus depend less on a flawed memory and more on a detailed narrative that can be interpreted from several perspectives, either independently or together with professional others. Mead holds that an individual as a “physiological organism” (Zhao, 2015, p. 243) is “surrounded by things and acts with reference to things, including parts of its own body” (Mead, 1934, p. 137) and, as such, both self and body can be related to from an outside perspective. In order for the students to act, show, and relate to their bodies as real physiotherapists and not merely as e-learners, they needed to reflect on their bodies both from their own inside perspective and from an outside perspective, assuming the role of physiotherapist as the generalized other. Thus, one of the workshop goals in the physiotherapy programme was to use technology to support students in solving the identity dilemma by allowing the e-learner identity—which included the e-learner’s easy access to technology—to serve as a highlighter of the physiotherapy identity, instead of letting the former partly undermine the latter.

They look at themselves...

Because of the importance of the body to physiotherapists’ professional identity, one of the main interests of teachers participating in the learning design workshops was to sketch new designs for e-learning in the programme with a clear focus on the body. Thus, one of the design elements consisted of the integration of video into the students’ group work when they were away from campus, with the intention of later viewing the videos in class or individually.

The students recorded short videos with their smartphones. Working in groups, they watched, evaluated, and sometimes re-recorded if they found that the “actors” had made mistakes or forgotten something, which the actors they very often did. The videos were then uploaded for the teacher to view. Producing the short videos was time-consuming, but both the students and the teachers found the production and the evaluations of the videos very eye-opening. One of the teachers expressed the following during an interview:

This is an excellent tool for realising that what we teach is not just nerd stuff. It has to do with your own working position, your own contact, bed adjustment, patient handling, all these things are something the student can see and say: “Well, I really can see that it’s not good right there.” And that’s what I find so great about video, that it mirrors you, so to speak, if you use it right. And the students look at themselves and say: “Well, okay...” You know... evaluate what they see.

For the videos, students were instructed to assume the role of “themselves as future physiotherapists,” performing professional actions such as palpation, anamnesis, or transfer of patients. With a focus on these actions, the students were to reflect, comment, and argue for their choice of actions and their method of performing them. The teachers argued that in order to do this, students would need to consult academic theory and acquire the relevant knowledge. After observing their videos, students could see, reflect on, and evaluate their own actions and interactions with colleagues and patients. Moreover, the video would allow them to hear comments and see reactions that had taken place hitherto unnoticed, “behind their backs” —an aspect that made students very aware of the outside and time-deferred perspective.

The videos were produced with an awareness that both teachers and other students would view the recordings online in the Learning Management System (LMS) and discuss them in class, so a certain degree of attention to the gaze of outsiders was potentially present

in the students' acting and clinical reasoning. Cooley (1922 [1902]) argues that this imagination of our appearance as seen by the other person, and the imagination of the other's judgement of that appearance, contributes to the development of identity. The use of video, however, supplies that imagined judgement by allowing for interpretation and judgement of one's own appearance (Weigert & Gecas, 2003, p. 276). Teachers found this opportunity to mirror and maintain actions via video a great advantage because it created a reified point of departure for reflection on professional actions and because students could see their own actions from a perspective other than the one they took while acting in the situation.

Research (cf. Nielsen, 2014) finds that video in particular can contribute to reflection on one's own practice and strengthen the connection between theory and practice in education. One of the advantages that is often highlighted is the opportunity to rewind to a certain moment in time and watch a specific action from an outside perspective (Freese, 1999), which can facilitate reflection-on-action (Bayat, 2010; Schön, 1991). This reflection process can be seen as self-talk or self-interaction: The actor selects, suspends, regroupes, and transforms the meanings in the light of the situation in which he is placed and the direction of his action. Accordingly, interpretation should not be regarded as a mere automatic application of established meanings but as a formative process in which meanings are used and revised as instruments in the guidance and formation of action. It is necessary to see that meanings play their part in action through a process of self-interaction (Blumer, 1969, p. 5).

As stated earlier, according to Mead, the human self consists of the two phases "I" and "Me," where "I" is the acting aspect of the self as subject and "Me" is the object of it. All action starts with "I" (Mead, 1934, p. 174), and this "I" can be defined as the impulse of an individual human being with a distinct personality (Shibutani, 1991, p. 61). Weigert and Gecas note that "[t]he conundrum is that self never knows the 'I', because once it is known, it is a 'me', that is, an objectified aspect of self" (2003, p. 267). However, where professional identity is concerned, it is the "Me" that is in focus, because identity refers to typifications of self as "Me," of self defined by self or the other. "Me" is the internalisation of values, expectations, understandings, and perspectives of the self that it has acquired and learned from interactions with the generalized other (Milliken & Schreiber, 2012). The intent of the learning design element with video was therefore that the student (as "I"), with the eyes of a physiotherapist, would watch his or her own acting body (as "Me") from the perspective and in the role of a physiotherapist. Thus, both aspects (I-Me) were attributed to the physiotherapist identity, just as the evaluating professional gaze belonged to the physiotherapist as generalized other.

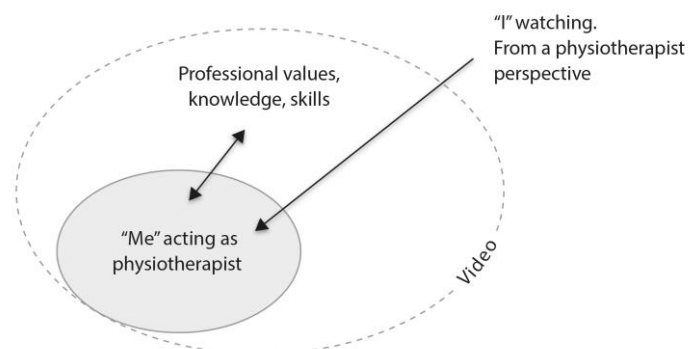


Figure 3: "I" watching, reflecting, and evaluating the "Me" that is acting on video in relation to the professional values, knowledge, and skills.

To see oneself as a physiotherapist

This reflection on one's own performance is neither always pleasant nor easy. Dewey described *reflection* as a painful effort of disturbed habits to readjust themselves (Dewey, 1930, p. 76). The teachers in the programme observed that the video spotlighted habits of which students were unaware. Students were then able to make those habits objects for reflection and determine whether something had been done in a certain way merely out of habit. As one interviewed teacher said:

To see oneself, that gives a lot of feedback, so to speak... They don't learn much from the perfect video clip; actually they learn when they make mistakes that are pointed out and discussed [...] I too made some videos where I say that I do something in a certain way—which I can see on the video that I actually don't...

The teachers also found that observing their own habits was educational both for them and for their students with regard to the experience of the role as educators and physiotherapists respectively.

According to symbolic interactionism, people can objectify others and themselves: "[One] acts toward himself and guides himself in this action toward others on the basis of the kind of object he is to himself. [...] Like other objects, the self-object emerges from the process of social interaction in which other people are defining a person to himself" (Blumer, 1969, p. 12). But in order to become an object to oneself, one must see oneself "from the outside" (Blumer, 1969, p. 13) by taking the other's perspective and looking at oneself from there. It is thus possible to assume the role as the generalized other, and thereby reflect on one's development of professional identity from this position. Blumer gives the example of "a young priest who sees himself through the eyes of the priesthood. We form our objects of ourselves through such a process of role-taking" (1969, p. 13). Mead (1934) further argues that the others' gaze, or one's imagination of that gaze, is of crucial importance to one's actions: "It is in the form of the generalised other that the social process influences the behaviour of the individuals involved in it and carrying it on, i.e., that the community exercises control over the conduct of its individual members; for it is in this form that the social process or community enters as a determining factor into the individual's thinking" (p. 155).

Accordingly, through the use of video, the student's body and actions were reified and could be watched in groups or together in the classroom from the generalized other's perspective in relation to professional practice. When the generalized other was understood as the (generalized) social community of physiotherapists of which the student saw himself or herself as a future member, the student had the opportunity not only to reflect on his or her professional actions as a physiotherapist but also to practice professional thinking and evaluation from this perspective. Professional identity is negotiated continuously, not only in the professional and educational context, but in numerous social settings, including in students' jobs, in clinical placement, and in the study groups. Consequently, the professional identity development was, to a large degree, affected by the individual's reflection on his or her role in the social setting. To see oneself from the outside and "take the attitude of the other toward himself" (Mead, 1934, p. 38) is crucial in the development of identity, and thus is also crucial in the development of professional identity. The video's reification of the acting "Me" made it possible to step into the role of the generalized other to observe and evaluate the actions from the perspective of an outside physiotherapist. This reflectivity, as Meltzer (2003) concludes, "empowers conscious, mindful adjustment to problematic situations" (p. 260). Prus (1996) observes that people acquire a language and develop capacities for self-reflectivity through association with particular groups: "By adopting the viewpoint of the (community-based) other, people begin to distinguish themselves from other things in their environment; they acquire selves (or more accurately, images or senses of self)" (1996, p. 12). Thus, in this

process of becoming professional objects unto themselves, the students were to think and act on an independent and solitary professional basis too.

Discussion and conclusion

The teachers in the physiotherapy programme found that the students' work with videos made them more aware of the complexity of their future profession and "the huge amount of knowledge that lies behind every single action," as one teacher put it. Technology in general, and video in particular, contributed to new opportunities for the students to mirror their actions (Weigert & Gecas, 2003) and thus practice the professional evaluation and reflection that is vital for the mastery of their future profession and for their professional identity as physiotherapists. According to Mead, it is not possible to perform these professional reflections in the present, but only in the past or future: one can remember one's actions in the past and imagine them in the future, but the "I" of the present cannot be objectified, because then the "I" turns into "Me" (Hewitt, 2003, p. 323). While the very character of the self as an object can make repeated, independent observations difficult (Shibutani, 1991, p. 65), the digital visualization and maintaining of the body in professional actions can establish a point of departure for the reflection on professional identity as "Me."

One might discuss whether this reflected "Me" in the video has any relationship to or relevance for the "real Me" where professional identity is concerned. The "Me" on the video is always only a very small part of the "real Me," and it might even be in role, and thus perhaps not quite authentic. One might even imagine that because of the mirroring via digital technology, the "video-Me" has no relationship to the experience of the "real Me." However, research has often found that identity and its development are affected not only by the real world but also by games and virtual worlds (Weigert & Gecas, 2003). Dunleavy, Dede, and Mitchell (2009), with reference to Gee (2003), find that students create game identities that intersect with their real-world identities: if they immerse themselves in a virtual world and adopt the rules and the chosen or appointed roles in that world, their real identity is affected by the digital one. Davis (2014) argues further that life takes place in both the physical and the digital world, often simultaneously; offline emotions thus prompt online actions, and online actions influence bodied emotions. Others have highlighted role playing as essential to the development of professional identity: "Professionalization is a type of activity in which managing impressions and role playing are basics and, therefore, one which the theatricality of social interaction is especially clear" (Haas & Shaffir, 1982, p. 187). In other words, what is experienced during game and play—or, in the case of this study, when performing one's professional role while recording it on video—affects not only the "game identity" but also the "real world identity." The paradox is, however, that the more successful the actor is at assuming the roles, and the less he or she feels is being simulated, the more he or she is convinced that the performances are authentic (F. Davis, 1968). This was a finding in this study as well: when the students seemed to forget the camera and the demand to *perform* a role, the reflection of it on the video appeared more authentic and rewarding with respect to professional learning.

In order to let video contribute to the development of professional identity, the student must accept an educational setting in which he or she can be present in more times and places; for example, in the classroom (physically, in present time) and in clinical placement (on the video, in the past). The use of video technology makes it possible to visualize and maintain the body in the process of performing professional actions. This learning design allows students' "I" to reflect on the reification of the professional identity as "Me," and the students could thus actively engage with the development of their professional identity.

References

- Antonietti, A., Confalonieri, E., & Marchetti, A. (2014). *Reflective thinking in educational settings: A cultural framework*. Cambridge: Cambridge University Press.
- Bayat, M. (2010). Use of dialogue journals and video-recording in early childhood teacher education. *Journal of Early Childhood Teacher Education*, 31(2), 159-172.
- Beijaard, D., Meijer, P. C., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. *Teaching and Teacher Education*, 20(2), 107-128.
- Blumer, H. (1969). *Symbolic interactionism: Perspective and method*. London: University of California Pr.
- Brinkmann, S. (2013). *Qualitative interviewing*. New York: Oxford University Press.
- Bryant, A., & Charmaz, K. (2013). In A. Bryant, & K. Charmaz (Eds.), *The Sage handbook of grounded theory* (Paperback Edition). Thousand Oaks, CA: Sage.
- Charmaz, K. (1994). Identity dilemmas of chronically ill men. *The Sociological Quarterly*, 35(2), 269-288.
- Charmaz, K. (2009). Shifting the grounds: Grounded theory in the 21st century. In J. M. Morse (Ed.), *Developing grounded theory. the second generation* (pp. 125-140). Walnut Creek: Left Coast Press.
- Clarke, A. E., & Friese, C. (2013). Grounded theorizing using situational analysis. In A. Bryant, & K. Charmaz (Eds.), *The SAGE handbook of grounded theory*. (Paperback Edition ed., pp. 363-397). Thousand Oaks, CA: Sage.
- Cooley, C. H. (1922 [1902]). *Human nature and the social order*. New York: Charles Scribner.
- Crossley, N., & Crossley. (1995). Body techniques, agency and intercorporeality: On goffman's relations in public. *Sociology*, 29(1), 133-149.
- Csikszentmihalyi, M., & Halton, E. (1981). *The meaning of things: Domestic symbols and the self*. Cambridge: Cambridge University Press.
- Davis, F. (1968). Professional socialization as subjective experience: The process of doctrinal conversion among student nurses. *Institutions and the person* (pp. 235-251). Chicago: Aldine.
- Davis, J. L. (2014). Triangulating the self: Identity processes in a connected era. *Symbolic Interaction*, 37(4), 500-523.
- Dewey, J. (1930). *Human nature and conduct : An introduction to social psychology*. New York: The Modern Library.
- Dunleavy, M., Dede, C., & Mitchell, R. (2009). Affordances and limitations of immersive participatory augmented reality simulations for teaching and learning. *Journal of Science Education and Technology*, 18(1), 7-22.
- Elkjær, B., & Wiberg, M. (2013). Pragmatismens læringssyn og pragmatisk læringsteori. In A. Qvortrup, & M. Wiberg (Eds.), *Læringsteori og didaktik* (pp. 124-143). København: Hans Reitzel.

Faircloth, C., Boylstein, C., Rittman, M., & Young, M. E. (2004). Disrupted bodies: Experiencing the newly limited body in stroke. *Symbolic Interaction*, 27(1), 71-87.

Freese, A. R. (1999). The role of reflection on preservice teachers' development in the context of a professional development school. *Teaching and Teacher Education*, 15(8), 895-909.

Friesen, N. (2009). *Re-thinking e-learning research: Foundations, methods, and practices*. New York: Peter Lang.

Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Computers in Entertainment (CIE)*, 1(1), 20-20.

Glaser, B. G., & Strauss, A. L. (1964). Awareness contexts and social interaction. *American Sociological Review*, 29(5), 669-679.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine Publishing Co.

Goffman, E. (1959). *The presentation of self in everyday life*. New York: Doubleday.

Goffman, E. (2010). *Relations in public : Microstudies of the public order*. New Brunswick, New Jersey: Transaction Publishers.

Haas, J., & Shaffir, W. (1982). Taking on the role of doctor: A dramaturgical analysis of professionalization. *Symbolic Interaction*, 5(2), 187-203.

Heggen, K. (2010). Profesjon og identitet. In A. Molander, & L. I. Terum (Eds.), *Profesjonsstudier* (pp. 321-332). Oslo: Universitetsforlaget.

Hewitt, J. P. (2003). Symbols, objects, and meanings. In L. T. Reynolds, & N. J. Herman-Kinney (Eds.), *Handbook of symbolic interactionism* (pp. 307-326). Lanham: AltaMira Press.

James, W. ([1890] 1918). *The principles of psychology*. New York: Dover.

Johnson, J. M. (2013). The contributions of the California sociologies to the diversity and development of symbolic interaction. In N. K. Denzin (Ed.), *40th anniversary of studies in symbolic interaction* (pp. 307-316). Bingley, UK: Emerald Group Publishing Limited.

Kannen, V. (2012). 'My body speaks to them': Instructor reflections on the complexities of power and social embodiments. *Teaching in Higher Education*, 17(6), 637-648.

Kvale, S., & Brinkmann, S. (2009). Interview: *Introduktion til et håndværk*. København: Hans Reitzel.

Laurillard, D. (2006). E-learning in higher education. In Ashwin (Ed.), *Changing higher education* (pp. 71-84). London: Routledge.

Loseke, D. R., & Cahill, S. E. (1986). Actors in search of a character: Student social workers' quest for professional identity. *Symbolic Interaction*, 9(2), 245-258.

Lund, H., Bjørnlund, I. B., & Sjöberg, N. E. (2010). *Basisbog i fysioterapi*. København: Munksgaard.

Mead, G. H. (1934). *Mind, self, and society: From the standpoint of a social behaviorist*. London: University of Chicago press.

- Meltzer, B. N. (2003). Mind. In L. T. Reynolds, & N. J. Herman-Kinney (Eds.), *Handbook of symbolic interactionism* (pp. 253-266). Lanham: AltaMira Press.
- Milliken, P. J., & Schreiber, R. (2012). Examining the nexus between grounded theory and symbolic interactionism. *International Journal of Qualitative Methods*, 11(5), 684-696.
- Nicholls, D. A., & Gibson, B. E. (2010). The body and physiotherapy. *Physiotherapy Theory and Practice*, 26(8), 497-509.
- Nielsen, T. K. (2014). *Teori og praksis i professionsbacheloruddannelserne: Et systematisk review*. Aarhus: Aarhus Universitet.
- Prus, R. (1996). *Symbolic interaction and ethnographic research : Intersubjectivity and the study of human lived experience*. New York: State University of New York Press.
- Reid, A., Dahlgren, L. O., Petocz, P., & Dahlgren, M. A. (2008). Identity and engagement for professional formation. *Studies in Higher Education*, 33(6), 729-742.
- Riemer, J. W. (1977). Becoming a journeyman electrician: Some implicit indicators in the apprenticeship process. *Work and Occupations*, 4(1)
- Roskell, C. (2013). An exploration of the professional identity embedded within UK cardiorespiratory physiotherapy curricula. *Physiotherapy*, 99(2), 132-138.
- Rylander, A. (2012). *Pragmatism and design research*. (No. 2). Stockholm: Designfakultetens serie kunskapssammanställningar.
- Schön, D. A. (1991). *The reflective practitioner: How professionals think in action* (Paperback ed.). Aldershot Hants: Avebury.
- Shaffir, W., & Pawluch, D. (2003). Occupations and professions. In L. T. Reynolds, & N. J. Herman-Kinney (Eds.), *Handbook of symbolic interactionism* (pp. 893-913). Lanham: AltaMira Press.
- Shibutani, T. (1991). On the empirical investigation of self-concepts. In D. R. Maines (Ed.), *Social organizations and social process. essays in honor of anselm strauss* (pp. 59-69). New York: Walter de Gruyter, Inc.
- Stone, G. P. (2009). Appearance and the self: A slightly revised version. In D. Brissetts, & C. Edgely (Eds.), *Life as theater: A dramaturgical sourcebook* (3rd ed., pp. 141-162). New Jersey: Transaction Publishers.
- Strauss, A. L. (1997). *Mirrors and masks: The search for identity*. New Brunswick, New Jersey: Transaction publishers.
- Sutherland, L., Howard, S., & Markauskaite, L. (2010). Professional identity creation: Examining the development of beginning preservice teachers' understanding of their work as teachers. *Teaching and Teacher Education*, 26(3), 455-465.
- Trede, F., & Smith, M. (2012). Teaching reflective practice in practice settings: Students' perceptions of their clinical educators. *Teaching in Higher Education*, 17(5), 615-627.

Vryan, K. D., Adler, P. A., & Adler, P. (2003). Identity. In L. T. Reynolds, & N. J. Herman-Kinney (Eds.), *Handbook of symbolic interactionism* (pp. 367-390). Lanham: Rowman & Littlefield Publishers, Inc.

Waskul, D. D. (2002). The naked self: Being a body in televideo cybersex. *Symbolic Interaction*, 25(2), 199-227.

Weigert, A. J., & Gecas, V. (2003). Self. In L. T. Reynolds, & N. J. Herman-Kinney (Eds.), *Handbook of symbolic interactionism* (pp. 267-288). Lanham: AltaMira.

Zhao, S. (2015). Reconceptualizing the self phenomenon: Toward an emic conception of the self. *Symbolic Interaction*, 38(2), 235-260.